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PN - JP2001209909 A 20010803  
PD - 2001-08-03  
PR - JP20000018473 20000127  
OPD - 2000-01-27  
TI - RECORDING/REPRODUCING SEPARATED MAGNETIC HEAD  
IN - MIMA HIROYUKI;TORII ZENZO;FUJII SHIGEO;HARADA HITOSHI;  
HATANO HIROYUKI;FUKU TOSHIHIRO;MASUDA KENZO;MEGUR  
O SATOSHI;MUTO KENJI  
PA - HITACHI METALS LTD  
IC - G11B5/31 ; G11B5/39

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TI - Magneto-resistance effect type magnetic head includes magnetic pole section formed on projected portion of gap layer and yoke section ends of same height is connected to magnetic pole section and pole pillar

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PA - (HITK ) HITACHI METALS LTD

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AB - JP2001209909 NOVELTY - The upper magnetic pole comprises magnetic pole section (38), magnetic pole pillar (41) and a yoke section (50). The section (38) is formed on the projected portion (333) of gap layer (35) on the lower pole magnetic layer (33). The ends of yoke section (50) of same height is connected to section (38) and pillar (41).

- DETAILED DESCRIPTION - The lower magnetic pole (34) includes magnetic layers (32,33) having different magnetic characteristics. The magnetic material of the layer (33), has highly saturated magnetic flux density than that of layer (32).
- USE - E.g. magneto-resistance effect type magnetic head.
- ADVANTAGE - As the track width and gap depth are reduced, the size of the magnetic head is reduced. Enhances heat dissipation characteristics.
- DESCRIPTION OF DRAWING(S) - The figure shows a sectional view of magnetic head. (Drawing includes non-English language text).
- Magnetic layers 32,33
- Magnetic pole 34
- Gap layer 35

- Magnetic pole section 38
- Magnetic pole pillar 41
- Yoke section 50
- Projected portion of gap layer 333
- (Dwg.1/11)

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IN - MIMA HIROYUKI, TORII ZENZOMASUDA KENZOHARADA  
HITOSHI, MEGURO SATOSHI, FUJII SHIGEO, HATANO  
HIROYUKI, MUTO KENJI, FUKU TOSHIHIRO

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TI - RECORDING/REPRODUCING SEPARATED MAGNETIC HEAD

AB - PROBLEM TO BE SOLVED: To realize the miniaturization, the higher capacity and the higher transfer rate of a recording/reproducing separated magnetic head by narrowing track width, controlling the depth of a gap and enhancing heat radiation.

- SOLUTION: A recording head part is formed in the following steps. A lower magnetic pole is constituted of two layers of magnetic material and a gap apex is formed at a projecting part of the lower magnetic pole. A second lower magnetic pole layer having a width as same as the width of a magnetic pole part (track width) is formed and the magnetic pole part, a lowermost layer coil and a magnetic pole cylinder are formed on the same plane. At least the upper surface of a rear part upper layer coil comes into direct contact with a protective film.

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